SCIENCE & EDUCATION Impact
Benefits from USDA/Land-Grant Partnership

Innovative Solutions Turn a Profit

Better management increasing productivity, reducing losses.

When the market value of crops and livestock take a plunge, producers have a rough time breaking even. Farmers depend on Land-Grant universities and the USDA to implement research and education programs that offer viable production and marketing options that will maximize profits and sustain food and fiber for consumers.

Payoff

- **Milking money. Louisiana State** researchers have linked poor reproductive performance of dairy cattle during the ryegrass grazing season to excess protein in their diet. A five-year study found that cows grazing ryegrass pastures conceive earlier if their grain supplement contains less protein. Implementing these findings would reduce feed costs, increase milk production and boost cash flow $2.8 million annually on Louisiana dairy farms. **Wisconsin** scientists found that adjusting a mixture of forages and grains in dairy rations speeds heifer growth. Dairy scientists estimate that implementing these recommendations reduces calving age by a month and saves producers who've adopted them about $18 million annually. **Minnesota** research and extension personnel are reducing dairy expenses through better management practices. Scientists identified ways to lower feed and fertilizer costs and found that maintaining a younger milking herd can increase revenue. By using manure on crops, one farmer cut fertilizer costs by $5,000 annually and maintained yields.

- **Prepared for the worst.** In recent years Texas farmers have suffered severe financial losses from an influx of livestock and crop diseases. **Prairie View A&M** Extension offered financial planning workshops to assist with farm management and debt accumulation. Four months after the workshops, farmers in six participating counties were approved for loans totaling $1.5 million. An additional 54 farm families received training in financial planning and management. The loan assistance and financial management training improved cash flow by $2,100 for each participating farmer.

- **A master of sales.** Producers in several states are enhancing their earnings through a series of marketing classes offered by Land-Grant universities. The **Texas A&M** Extension Master Marketers Program helps producers develop marketing plans,

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understand analysis and learn about international trading and value-added marketing. Participants in the first five trainings increased total annual average sales by $28,200. Marketing clubs at **Mississippi State** and **Purdue** are resources for timely market data to help farmers limit their risk. About 800 Mississippi farmers are involved in monthly marketing teleconferences where individual farmers generate up to $150,000 in additional earnings as a result of marketing decisions. Through Purdue's marketing network, 72 Indiana farmers improved their combined income by $500,000 annually. A participating farmer said he used new marketing tools to increase his sales by $150,000 in two years.

- **Fertilizer-free crops. Virginia State** Extension helped several farmers become certified organic producers in hopes of broadening interstate and international trade opportunities. To help small farmers take advantage of this niche market, researchers in Virginia are using demonstration plots to determine organic production expenses, the benefit of non-chemical control on insects and diseases and the value of cover crops in soil fertility. In 2000, about 30 new farms were certified, bringing the state total to 120 farms with 6,483 acres devoted to organic production. In New York, **Cornell** organized a statewide small grants program for research and teaching projects in organic farming and gardening. The program is helping organic growers expand markets, while students are learning to manage a farm and produce market.

- **Designer spuds.** Idaho is known for its baking potatoes, but growers with low-quality spuds are being challenged to improve and develop other marketable varieties if they want to remain competitive. Rough handling can break the potato skins, causing bruises and black spots that lower product value. **Idaho** researchers found that growers could net $11,700 more per acre by growing potato varieties and boosting their marketing techniques.

- **High on the heifer.** With only one local marketing outlet, beef cattle producers in Tate County joined the **Mississippi State** beef cattle marketing pool to advance cow/calf volume sales. Through the marketing pool, producers grossed $69.27 more per head on heifers. **Missouri** research and extension operates the Show-Me-Select heifer development program to peak producer profits by improving health, reproduction and genetic quality. Heifers from this first-of-its-kind program sold for record prices in 2000.

- **Profit networks.** Alternative marketing practices sometimes help restore farm profits. **Georgia** Extension formed the Southeast Georgia Cattle Marketing Association and within a few months networked with 22 buyers. The collaborative marketing effort generated $780,000 in the sale of source-verified cattle. **South Carolina State** Extension assisted small, part-time and limited-resource farmers by uniting their marketing efforts to sell collards, turnips, sweet corn, squash, watermelons, sweet potatoes and sugarcane. Eight participating farmers saw a combined annual income increase of $15,000 each.

- **The rice is right.** Rice producers are depending on **Arkansas** researchers to develop improved rice varieties that are resistant to diseases and pests to bring higher profits. Arkansas scientists, in cooperation with other Land-Grant universities and the USDA, have produced 12 genetically enhanced rice varieties since 1980. These new rice varieties account for 44 percent of Arkansas' rice crop. Rice yields have grown about 2,000 lbs. per acre since the program began and brought $55 million to the state's economy this year.

- **E-brands.** Cows resist the process and the leather industry loses valuable material when heat and freeze brands are used. **Texas Tech** researchers developed low-cost microchip ear tags to replace brands and provide more information for producers.

Cooperative State Research, Education, and Extension Service
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